REMARKS

Claims 61-78 are pending.

Claims 61-78 stand objected to under 37 CFR 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Claims 61-68, 70-73, 75, 76, and 78 stand rejected under 35 USC §102(b) as being allegedly anticipated by Baxter (US 5,209,131).

Claims 69, 64, and 77 stand objected to as being dependent upon a rejected base claim.

Changes in the Specification:

The specification has been amended for the purpose of improving the readability of the application. The changes are of a clerical, typographical or grammatical nature.

Specifically, the text "What is claimed is:" has been inserted at page 37, line 2 prior to the listing of the claims. The amendment was rejected by the examiner. No new matter has been added.

Changes in the Claims:

Claims 61, 64, 65, 71, 72, and 75 have been amended in this application to further particularly point out and distinctly claim subject matter regarded as the invention. No new matter has been added.

Claims 69, 74 and 77 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Objection under 37 CFR 1.75(a) – claims 61-78

Claims 61-78 stand objected for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. This rejection is respectfully traversed.

The Office Action alleges that the preamble "A device, comprising:" in Claims 61 and 72 is unclear. Claims 61 and 72 have been amended accordingly to replace "a device" with --a device for measuring a three-dimensional geometry of an object--. Accordingly, this objection is now moot.

The Office Action alleges that in Claim 61, line 10, "making a measurement" is unclear because it is unclear as to what measurement is made. Claim 61 has been amended to replace "making a measurement" with --making a measurement of the three-dimensional geometry of the object--. Accordingly, this objection is now moot.

The Office Action alleges that in Claim 64, lines 1-2, and in Claim 65, lines 1-2, the limitation "the turntable defines a receptacle" because there is some ambiguity as to how one physical object defines another physical object. Claims 64 and 65 have been amended to replace "the turntable defines a receptacle" with -- the turntable including a receptacle --. Accordingly, this objection is now moot.

The Office Action alleges that in Claim 71, line 3, the limitation "from data" is unclear. Claim 71 has been amended to replace "from data" to --from sensor data--. Accordingly, this objection is now moot.

The Office Action alleges that in Claim 72, line 11, the text "turntable configured receiving" should have been phrased "turntable configured to receive". Accordingly, this amendment has been made and this objection is now moot.

The Office Action alleges that in Claim 72, lines 18-19, the phrase "the determination of the three-dimensional geometry" lacks clear antecedent basis. In response, "the determination" has been amended to read "a determination". Accordingly, this objection is now moot.

The Office Action alleges that in Claim 75, line 1, the term "of 73" is unclear. Claim 75 has been amended to replace "of 73" to --of Claim 73--. Accordingly, this objection is now moot.

The claims now meet the statutory requirements.

Rejection under 35 USC §102(b) – claims 61-68, 70-73, 75, 76, and 78

Claims 61-68, 70-73, 75, 76, and 78 stand rejected under 35 USC §102(b) as being allegedly anticipated by Baxter (US 5,209,131). This rejection is respectfully traversed.

A claim must be anticipated for a proper rejection under §102(a), (b), and (e). This requirement is satisfied "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"; see MPEP §2131 and *Verdegaal Bros. V. Union Oil*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1984). A rejection under §102(b) may be overcome by showing that the claims are patentably distinguishable from the prior art; see MPEP §706.02(b).

Baxter describes a measuring probe having a stylus suspended by resilient forces. During a calibration process, a turntable is used to accurately rotate a probe tip through a circular path while probe data is obtained and correlated with positional data for use in correcting measurement signals.

In contrast, Claim 61 claims a turntable configured to support an object, the turntable and the object configured to rotate about the axis one of during **making a measurement of the three-dimensional geometry of the object** and between making measurements from a plurality of measurements of the three-dimensional geometry of the object, and **a processor configured to determine the three-dimensional geometry of the object** based on the measurement and the angular rotation.

Baxter does **not** teach or suggest measuring of a three-dimensional geometry of an object received on a turntable surface. Instead, Baxter's turntable is merely used to cause a probe tip to rotate in a circular path while calibration data is obtained. As illustrated in FIG. 19 of Baxter, stylus tip 56 is offset from an axis 254 by a guide means 258. When stylus tip 56 is offset from axis 254 by the action of guide means 258, a rotation of turn table 250 would cause stylus tip 56 to move in a circular path so long as stylus tip 56 remains in contact with guide means 258. Since the only contact that stylus tip 56 has with anything during the rotation of turntable 250 is a constant contact with one position of guide means 258, clearly stylus tip 56 is **not** and **cannot** be used to determine a three-dimensional geometry of an object while the turntable is being rotated.

Baxter does **not** teach a processor configured to determine the three-dimensional geometry of the object based on the measurement and the angular rotation. FIG. 20 of Baxter describes data processing means for performing "a correlation between the sensor data and the positional data so as to obtain **calibration parameters for correction of the measurement signals**." See Col. 24, lines 49-52. Calibration parameters for correction of the measurement signals does **not** and **cannot** include a three-dimensional geometry

measurement of the object because the stylus is in constant contact with a pair of abutments 278 attached with an adhesive 280 to a face of guide means 258.

With respect to dependent Claim 62, the Office Action alleges that Baxter discloses the feature of this claim in figures 19 and 20. Figure 19 illustrates a view of part of a calibration machine including guide means, turntable 250, angular encoder 272, and sensor 274. Figure 20 illustrates data processing means 400 that store the calibration parameters. However, neither Figure 19 nor Figure 20 in Baxter describe making a measurement of the three-dimensional geometry of the object.

With respect to dependent Claim 63, the Office Action alleges that Baxter discloses the feature of this claim in the Abstract, and Figures 19 and 20. The Abstract describes a measuring probe 10. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. However, neither Figure 19 nor Figure 20 in Baxter describe a probe "configured to physically trace a surface of the object to detect three-dimensional coordinates associated with the three-dimensional geometry of the object" as claimed in Claim 63. Instead, Baxter describes a stylus 50 that does not lose contact with one face of the guide means. See Col. 29, lines 15-16.

With respect to dependent Claim 64, the Office Action alleges that Baxter discloses the feature of this claim in Figures 19, 20, and col. 10, lines 19-29. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. Col. 10, lines 19-29 describes a "calibration apparatus for calibrating a continuous measuring probe." However, Baxter does not describe "a receptacle disposed adjacent a periphery of the

turntable" and "making a measurement of the three-dimensional geometry of the object" as claimed in Claim 64.

With respect to dependent Claim 65, the Office Action alleges that Baxter discloses the feature of this claim in Figures 19, 20, and col. 10, lines 19-29. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. Col. 10, lines 19-29 describes a "calibration apparatus for calibrating a continuous measuring probe." However, Baxter does not describe "a receptacle disposed adjacent a center of the turntable" and "making a measurement of the three-dimensional geometry of the object" as claimed in Claim 65.

With respect to dependent Claim 66, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. However, Figure 19 in Baxter does not describe "making a measurement of the three-dimensional geometry of the object" as claimed in Claim 66.

With respect to dependent Claim 67, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19, and col. 2, lines 34-45. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Col. 2, lines 34-45 describe a probe having a stylus in the Z direction. However, Figure 19 in Baxter does not describe "a stylus including a tip configured to contact the object" and a probe "configured to physically trace a surface of the object to detect three-dimensional coordinates" as claimed in Claim 67.

With respect to dependent Claim 68, the Office Action alleges that Baxter discloses the feature of this claim in Figures 19, 20, col. 10, lines 19-29, and col. 24, lines 23-39. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. Col. 10, lines 19-29 describes a "calibration apparatus for calibrating a continuous measuring probe." Col. 24, lines 23-39 describes how to calibrate the probe 10 by rotating the turntable means 250 "to displace the stylus tip 56 along a circular path in discrete steps corresponding to a given angular movement θ of the turntable 250." However, Baxter does not describe "making a measurement of the three-dimensional geometry of the object" as claimed in Claim 68.

With respect to dependent Claim 70, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19, col. 11, lines 2-4. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Col. 11, lines 2-4 describes that "upon rotation of the turntable, the stylus tip is displaced along a defined path." Baxter does not describe a turntable configured to be manually rotated as claimed in Claim 70.

With respect to dependent Claim 71, the Office Action alleges that Baxter discloses the feature of this claim in Figure 20. Figure 20 illustrates data processing means 400 that store the calibration parameters. However, Baxter does not describe a processor "configured to output data values associated with a three-dimensional model of the object from sensor data associated with the three-dimensional geometry of the object" as claimed in Claim 71.

With respect to dependent Claim 72, the Office Action alleges that Baxter discloses the feature of this claim in the Abstract, Figures 19, 20, col. 3, lines 4-9, 17-20. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. Col. 3, lines 4-9, 17-20 describe a multiaxis probe capable of following arcuate path in the X, Y plane. However, the probe is not "configured to detect information associated with the three-dimensional geometry of the object" since it is constantly in contact with only one side of the guiding means. Thus, Baxter does not describe "at least one sensor configured to detect information associated with the three-dimensional geometry of the object" as claimed in Claim 72.

With respect to dependent Claim 73, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Baxter does not describe a "turntable data that is operative to locate the object on the rotary table with respect to the apparatus after the turntable is rotated." Indeed, Baxter cannot locate the object on the rotary table since its probe is in constant contact with the same surface of the guiding means during rotation.

With respect to dependent Claim 75, the Office Action alleges that Baxter discloses the feature of this claim in the Abstract, and Figures 19 and 20. The Abstract describes a measuring probe 10. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. However, neither Figure 19 nor Figure 20 in Baxter describe a probe "configured to trace a surface of the object to generate probe data, the at

least one sensor configured to generate data associated with the three-dimensional geometry of the object based on the probe data" as claimed in Claim 75. Instead, Baxter describes a stylus 50 that does not lose contact with one face of the guide means. See Col. 29, lines 15-16.

With respect to dependent Claim 76, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19, and col. 2, lines 34-45. Figure 19 illustrates a view of part of a calibration machine including guide means, turntable 250, angular encoder 272, and sensor 274. However, Figure 19 in Baxter does not describe making a measurement of the three-dimensional geometry of the object as claimed in Claim 76.

With respect to dependent Claim 78, the Office Action alleges that Baxter discloses the feature of this claim in Figure 19, 20, Col. 10, lines 19-29. Figure 19 illustrates a view of the measuring probe 10 in contact with guide means 258. Figure 20 illustrates data processing means 400 that store the calibration parameters. Col. 10, lines 19-29 describes a "calibration apparatus for calibrating a continuous measuring probe." However, Baxter does not describe "a receptacle disposed adjacent a periphery of the turntable" and "making a measurement of the three-dimensional geometry of the object" as claimed in Claim 78.

The presently claimed invention is, accordingly, distinguished over the cited reference. In the view of the foregoing, it is respectfully asserted that claims 61-68, 70-73, 75, 76, and 78 are now in condition for allowance.

Allowable Subject Matter

Claims 69, 74, and 77 were designated by the Office Action as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and subject to the appropriate correction of the 37 CFR 1.75(a) objections. The Examiner is thanked for this indication of allowability and the claims have been so amended. Accordingly, claims 69, 74, and 77 are now allowable.

Conclusion

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the prior art. Therefore, Applicants submit that this application is now in condition for allowance.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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